

Appl. No. : 10/090,060
Filed : March 1, 2002

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A building material incorporating reinforced cellulose fibers, wherein at least a portion of the fibers are at least partially treated with a dispersant to form chemically treated cellulose fibers with improved dispersibility, wherein the dispersant binds hydroxyl groups on the fiber surface so as to substantially inhibit bonding between hydroxyl groups of different fibers, thereby substantially reducing inter-fiber hydrogen bonding so that the chemically treated fibers can be more readily dispersed in the building material.

2. (Original) The building material of Claim 1, wherein the dispersant binds hydroxyl groups on the fiber surface so as to substantially inhibit bonding between hydroxyl groups of the same fiber, thereby substantially reducing intra-fiber hydrogen bonding.

3. (Original) The building material of Claim 1, wherein the dispersant physically blocks the hydroxyl groups from bonding with hydroxyl groups of different fibers.

4. (Original) The building material of Claim 1, wherein the dispersant comprises at least one functional group that chemically bonds to the hydroxyl groups on the fiber surface in a manner so as to substantially prevent the hydroxyl groups from bonding with hydroxyl groups of different fibers.

5. (Original) The building material of Claim 1, wherein the dispersant comprises a surfactant that imparts the fibers improved dispersibility in an aqueous environment.

6. (Original) The building material of Claim 1, wherein the dispersant comprises organic compounds selected from the group consisting of polyamine compounds, cationic quaternaryamine surfactants, cationic surfactants, anionic surfactants, non-ionic surfactants, alkylalkoxysilane, alkoxysilane, halide organosilane, and mixtures thereof.

7. (Original) The building material of Claim 1, wherein the dispersant comprises approximately 0.001%-20% of the oven dry weight of the fibers.

8. (Original) The building material of Claim 1, wherein the dispersant comprises a debonder.

Claim 9 – Claim 34 (Canceled).